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SEGA

Virtua Fighter 4™

Universal Kit

Kit Installation Instructions
& Service Manual

Switchable ***FROM*** High Resolution 31K
TO Standard (Low) Resolution 15.75K.

1 - 2 PLAYER GAME

SEGA ENTERPRISES, INC. USA

MANUAL NO. 999-1310

VISIT OUR WEBSITE!

Virtua Fighter 4
Sega Naomi System
Kit Contains List

Part #	Desc	Qty
400-5397-01	NAOMI POWER SUPPLY	1
838-13616	AUDIO POWER AMP 2 CH	1
560-5407-UL	AUDIO XFORMER 120V	1
838-13683-93CV1	JAMMA I/O BD (NAOMI)	1
600-7141-200	USB CABLE	1
600-7009-2500	VGA VIDEO CABLE	1
840-0080D-01	ASSY CASE NAT VF4 USA	1
600-7247-500	CABLE SCSI TYPE 2 500MM	1
LOC. PURCHASE	SERVICE SWT BRKT ASSY	1
LOC. PURCH. HAPP	JOYSTICK, COMP. GR	2
LOC. PURCH. HAPP	SWITCH, PB LARGE	2
LOC. PURCH. HAPP	BUTTON, COMP. GR	2
LOC. PURCH. HAPP	BUTTON, COMP. BLU	2
LOC. PURCH. HAPP	BUTTON, COMP. RED	2
999-1312	MARQUEE ART	1
999-1313	INSTRUCTION SHEET	1
999-1314	SIDE DECALS	2
999-1315	CONTROL PANEL OVERLAY (DED)	1
999-1316	CONTROL PANEL OVERLAY (GEN)	1
999-1310	VF4 MANUAL	1
999-1317	(METALPLATE) CONTROL PNL VS3	1
999-1319	INSTRUCTION FOR CHARACTERS	1

Virtua Fighter 4

Sega Naomi System

Kit Contains List

Part #	Desc	Qty
999-1320	DECAL FOR DEFENSE (GREEN)	2
999-1321	DECAL FOR PUNCH (BLUE)	2
999-1322	DECAL FOR KICK (RED)	2

DESIGNED RELATED PARTS

MARQUEE ART ----- 999-1312

INSTRUCTION SHEET FOR CHARACTERS ----- 999-1319

INSTRUCITON SHEET ---- 999-1313

NOT PICTURED ARE DECAL DEFENSE (GREEN) ---- 999-1320
PUNCH (BLUE) ---- 999-1321
KICK (RED) ---- 999-1322

DECAL SIDE ART ---- 999-1314

CONTROL PANEL ---- 999-1315

CONTROL PANEL ---- 999-1316

Feb 9. 2000

120

SERVICE BULLETIN

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Fremont, Ca. 94538

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SPECIAL NOTICE FOR ALL SEGA NAOMI KITS

PROBLEM:

The SEGA Naomi Game kits are actually 'JAMMA Dependent'. What this means exactly is they will only install into existing JAMMA Cabinets. If an operator tries to install these kits into a Non-JAMMA cabinet, they will first have to bring the wiring up to JAMMA Standards.

SOLUTION:

- Step 1 Disconnect the games original DC Power Supply. You may only use the power supply provided with your kit. Be sure to set the voltages going to your Game BD to 5.1 and 3.3 volts DC to assure proper operation (Measure on Square Connector at Game BD. Yellow = 5vdc / Brown = 3.3vdc / White = Gnd)
- Step 2 You MUST USE THE COIN METER SUPPLIED WITH YOUR KIT to assure proper Coin acceptance. A minimum 18 Gauge wire should be used from the Coin Meter 1 output line on your JAMMA Harness. The 5vdc (Yellow) wire found in the wiring bag of your kit MUST BE USED for the supply voltage to the meter.

IMPORTANT!

Not following the directions provided herein may cause your game to malfunction.
All electrical work should be performed by the site's Serviceman or Technician.

WARNING!

- In order to prevent an electric shock and short circuit, be sure to turn power off before performing work or touching the interior parts of the product.
- Be careful so as not to damage wirings. Damaged wiring can cause an electric shock or short circuit accident.
- Do not touch places other than those specified. Touching places not specified can cause an electric shock or short circuit accident.

If you have any questions please contact the SEGA Service Department at the numbers given above.

INSTALLATION INSTRUCTIONS

1) First. Remove all access panels from the game. Locate the original game Logic PCB's & Power Supply and remove from the Cabinet by first disconnecting all harnesses from the boards. (You need only to splice in the Main Power (110v AC) into the 3-Pin Connector (GRN/WHT/BLK).)

2) Remove all existing game harnesses (we suggest using New Jamma Harnesses (*NOT contained in the kit*) to ensure reliability).

3) Locate the most convenient and open area of the cabinet to mount the **Virtua Fighter 4** Naomi System Assembly. Make sure this area is free and clear of all cable harnesses and grounds, cable clamps, etc.

Vacuum out or clean bottom of cabinet of dirt & miscellaneous parts (e.g. screws, loose coins / tokens, etc.).

Remove all exterior decals and repair any cabinet damage. Repaint cabinet if necessary. Remove the Monitor Plexi or if your game plexi has Silk-screened artwork, you will need to strip it off.

4) Connect the JAMMA Harnesses to the JVS-JAMMA Interface Boards. Separate the wires from each other (i.e. Control Panel, Video, Speaker, Power Supply). Run the various harnesses to the part of the cabinet they go to ensuring they are dressed properly & secured to the cabinet. Locate the Volume/ Speaker/Coin Meter Cable and connect to your existing **Switch Bracket** or use the new one included with the kit. **Note:** *If you are using a VGA Compatible Monitor you can run your VGA Cable directly to the monitor or connect it to your JVS JAMMA Interface for RGB Conversion to your JAMMA Cables.*

5) Remove Marquee from cabinet and cut to fit the new **Virtua Fighter 4** Marquee in place.

REPLACE old Joysticks & Buttons with the **NEW** ones supplied in Kit.

6) First remove all Joystick and Button assemblies from the Control Panel. Remove Lexan and Control Panel Overlay. Proceed to clean surface of the Control Panel by removing all adhesive and dirt. Fill in or plug up existing button holes to set up a blank work area for your new controls.

7) Install the new Control Panel Overlay by carefully peeling off the paper backing and laying down on the panel. Smooth it out, starting in the center and working your way to the edges (removing all of the trapped air pockets). If necessary, cut the edges of the overlay excess and fold under panel.

8) Cut out the button and Joystick Holes. Install Joystick and buttons from kit into the Control Panel and tighten down. Connect all game harness wires to switches and buttons.

INSTALLATION INSTRUCTIONS

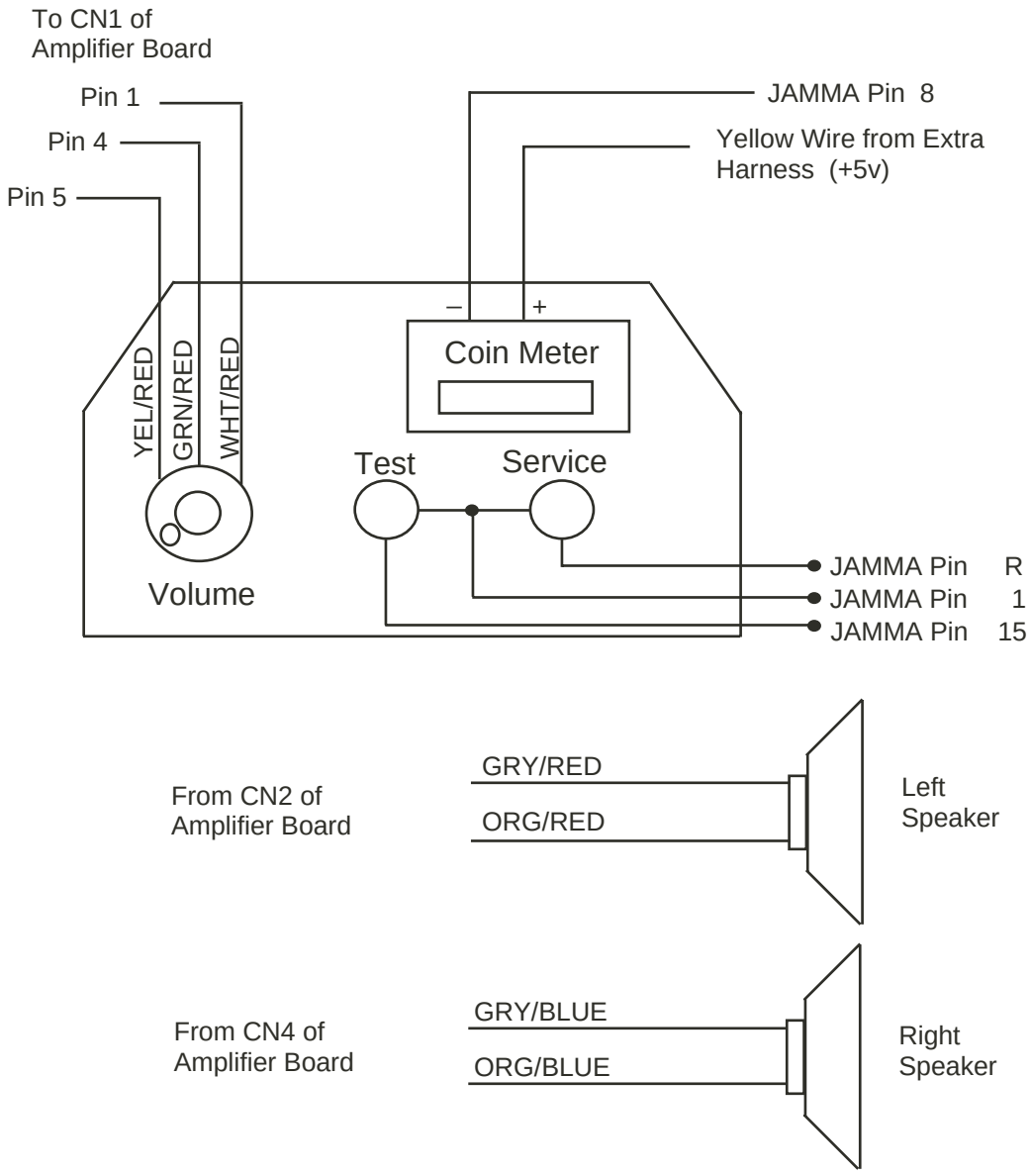
9) Proceed to place new decals on the sides of the cabinet. Locate a new monitor bezel, if needed, and replace glass, if required (due scratches). Install Instruction Placard to the back of the Monitor Glass.

NOTE: As a precaution, disconnect the JAMMA Harness from the I/O Boards and turn power on. With a Multi-Meter, measure the 5v and 3.3v. Adjust if necessary to 5.15v DCand 3.3vDC. Measure the +12 to ensure the wires and voltages are in the correct position. Turn power off. Plug in the JAMMA Harness once again to the I/O Boards. The Attract Mode should appear on the screen.

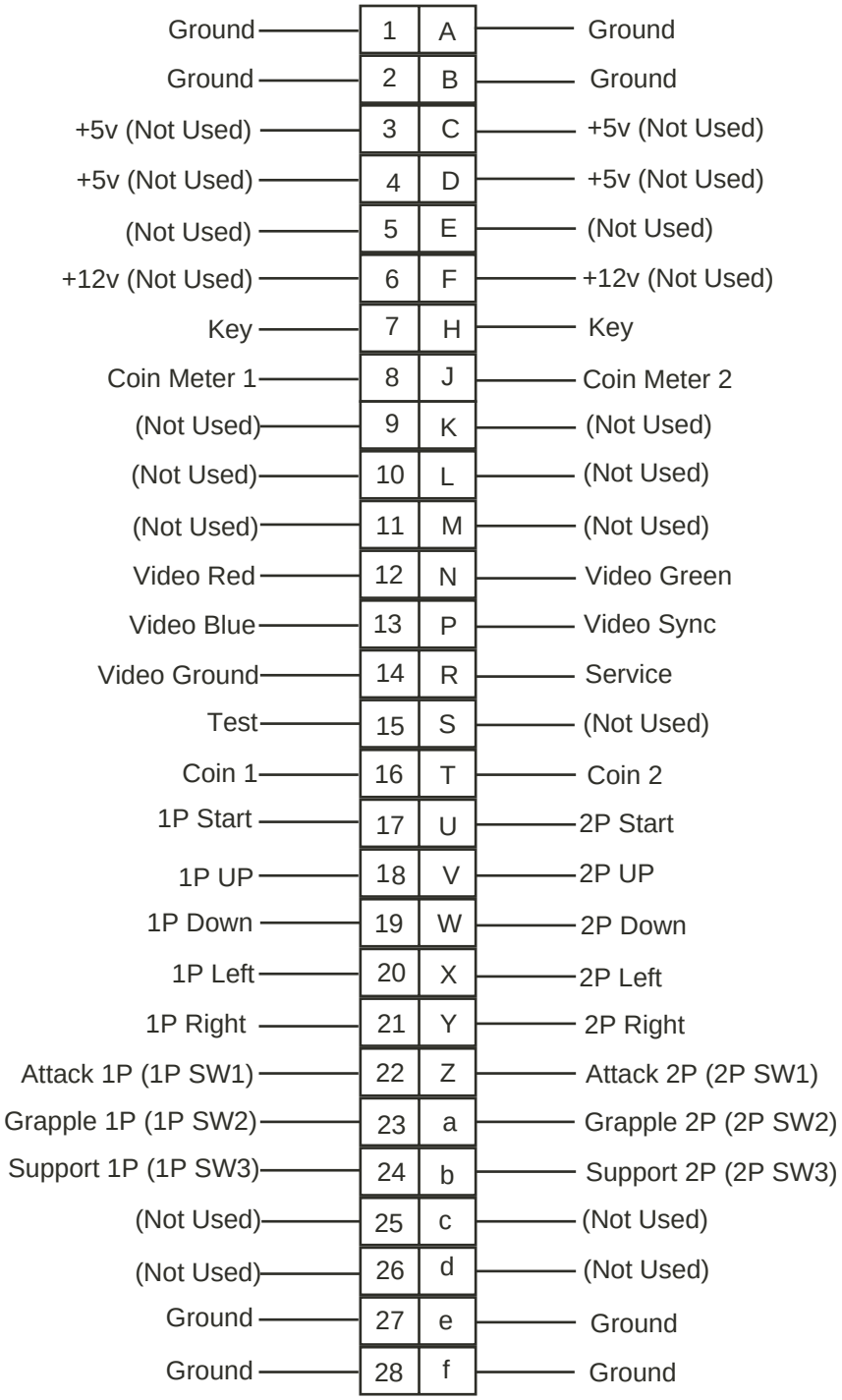
Adjust the **SIZE**, **CONTRAST**, **BRIGHTNESS**, and **COLORS** on the Monitor for optimum appearance. Adjust **VERTICAL/HORIZONTAL** Hold to get a stable picture, if required.

Enter **DIAGNOSTICS** and adjust the Volume Level, test all Buttons & Joystick for proper operation & wiring. Adjust Pricing. Coin-Up and test out a game to ensure proper play functions are as they should be.

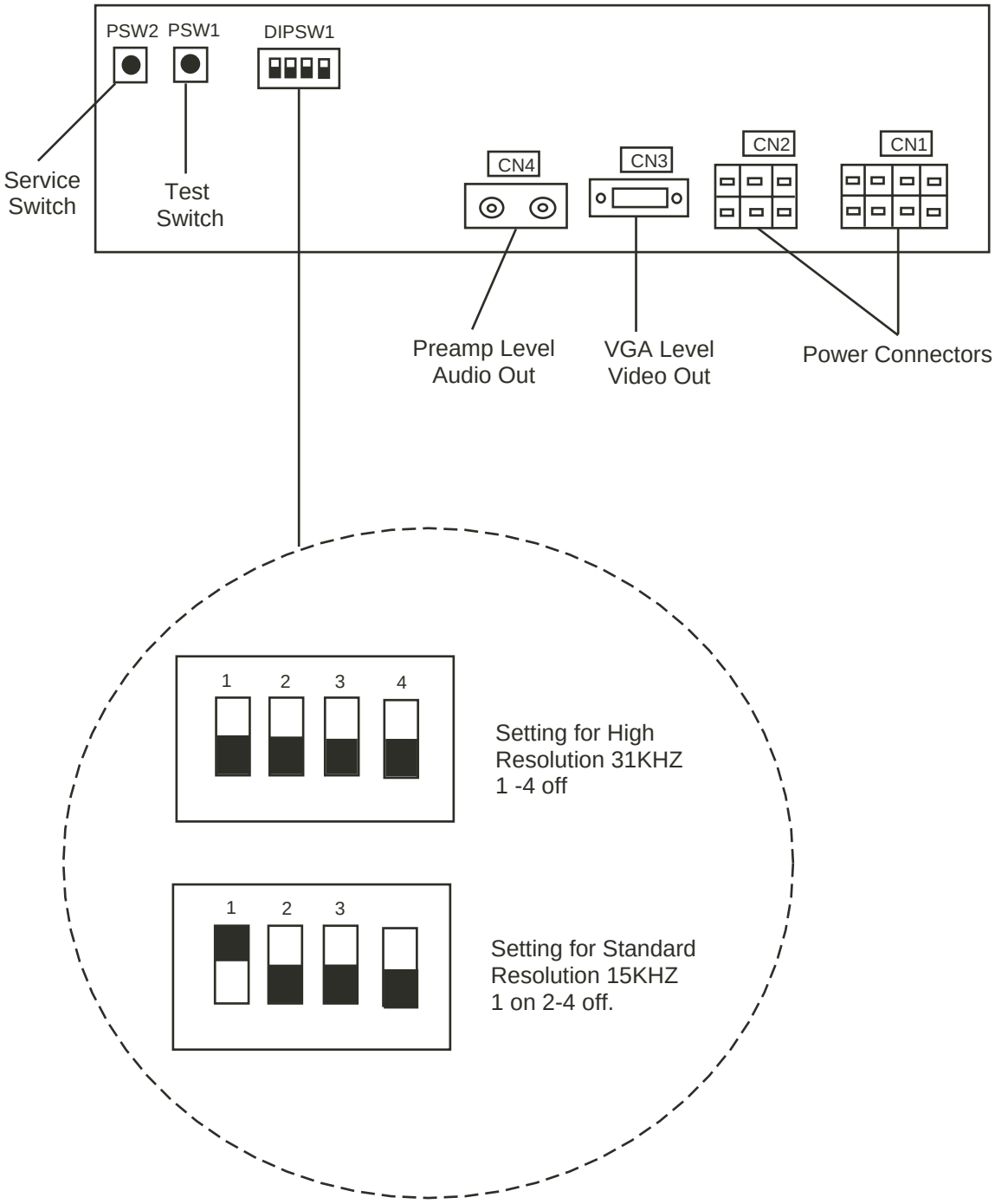
Sega Naomi System Switch Bracket and Speaker Installation Diagrams (Figure 3)



Sega Naomi System
JAMMA Harness Wiring
(JAMMA I/O BD)
(Figure 4)


Ground 1 A Ground
Ground 2 B Ground
+5v (Not Used) 3 C +5v (Not Used)
+5v (Not Used) 4 D +5v (Not Used)
(Not Used) 5 E (Not Used)
+12v (Not Used) 6 F +12v (Not Used)
Key 7 H Key
Coin Meter 1 8 J Coin Meter 2
(Not Used) 9 K (Not Used)
(Not Used) 10 L (Not Used)
(Not Used) 11 M (Not Used)
Video Red 12 N Video Green
Video Blue 13 P Video Sync
Video Ground 14 R Service
Test 15 S (Not Used)
Coin 1 16 T Coin 2
1P Start 17 U 2P Start
1P UP 18 V 2P UP
1P Down 19 W 2P Down
1P Left 20 X 2P Left
1P Right 21 Y 2P Right
Attack 1P (1P SW1) 22 Z Attack 2P (2P SW1)
Grapple 1P (1P SW2) 23 a Grapple 2P (2P SW2)
Support 1P (1P SW3) 24 b Support 2P (2P SW3)
(Not Used) 25 c (Not Used)
(Not Used) 26 d (Not Used)
Ground 27 e Ground
Ground 28 f Ground

Sega Naomi System
Filter Board Information
Connector Description etc.



1. HANDLING PRECAUTIONS

- To prevent electric shock or IC Board malfunctioning, be sure to turn off the power for the cabinet when installing or removing the IC Board.
- Extraneous matter such as dust on the IC Board can cause the IC Board to generate heat and result in a fire due to short circuit, etc. Ensure the IC Board surfaces are always kept clean.
- Use NAOMI 2 for the cabinets compatible with JVS. Using NAOMI for the cabinet other than those compatible with JVS can cause generation of heat and a fire.

- Be sure to connect the IC Board and connectors completely. Insufficient insertion can damage IC Board, etc.
- For the IC Board circuit inspection, only the use of Logic Tester is permitted. The use of ordinary testers is not permitted as these can damage the IC Board.
- Do not subject the IC Board to static electricity when installing the IC Board in the cabinet or when connecting wire harness connectors to the IC Board.
- When soldering buttons, etc. to the wire harnesses, be sure to remove the wire harnesses from the IC Board so as not to subject the IC Board to heat.
- Using NAOMI 2 without the Shield Case can cause electric wave trouble. Be sure to use NAOMI 2 together with the accessory Shield Case.
- The monitor frequency corresponding to NAOMI 2 is 15kHz or 31kHz. NAOMI 2 can not be used for the cabinet incorporating a monitor or projector not corresponding to 15kHz or 31kHz.

- Concerning the display of JAMMA VIDEO STANDARD:
  JAMMA VIDEO STANDARD adopted by NAOMI 2 is referred to as JVS. As against this Standard, the conventional JAMMA STANDARD which employs 56P Edge Connectors adopted by ST-V, etc. is displayed as Old JAMMA STANDARD.

  The specific Manual attached to each game sometimes displays JVS as JV STANDARD, New JAMMA STANDARD, or JAMMA 2 STANDARD against OLD JAMMA STANDARD as JAMMA STANDARD, JS, etc.

- The contents herein described are subject to change without notice.

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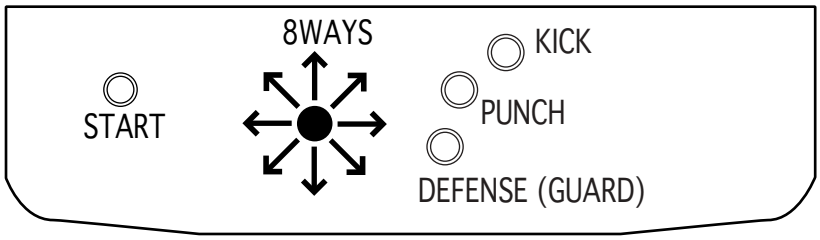
2. SPECIFICATIONS

① ON-SCREEN DISPLAY

Monitor Position

Horizontal Synchronous Frequency
31 / 15 kHz

② CONTROL PANEL



3. CONTENTS OF GAME

3 -1 OUTLINE OF THE GAME

- You, as a martial art fighter, play in a tournament.
- You operate a playing character to fight against an opponent computer-operated character (CPU).
- The playing characters covers 13 selectable regular characters and 1 boss character.

3 - 2 PLAYING PROCEDURE

① Total 13 characters are available. Out of them you select one character to start the game.

② At each stage you play a match against a computer-operated character.

③ Winning a match
- Each match consists of multiple rounds. You win a match when the number of your gained rounds reaches a preset value.
- When you win a match at any stage, you can proceed to a next stage and play a match against a new computer-operated character.

④ Gaining a round

You can gain a round when either of the following events occurs.
- You successfully reduce the opponent's energy to 0 (zero).
- Your energy remains much more than the opponent's energy when the limit time has become 0 (zero).
- You turn the opponent out of the ring.

When you and the opponent have drawn (that is, at the end of a round, both have a same level of energy or have knocked each other at the same time), both can gain the round exceptionally. When you and the opponent have drawn under a sudden death state (that is, the number of the gained rounds is equal to each other and either can win the match by obtaining one more round), either with more energy becomes a winner of the match.

⑤ When the GAME becomes OVER

The game is over when either of the following events occurs.
- You lose a match against a computer-operated character.
- You finish all the 14 stages: 13 stages, each with a regular computer-operated character, and 1 stage with a boss computer-operated character.

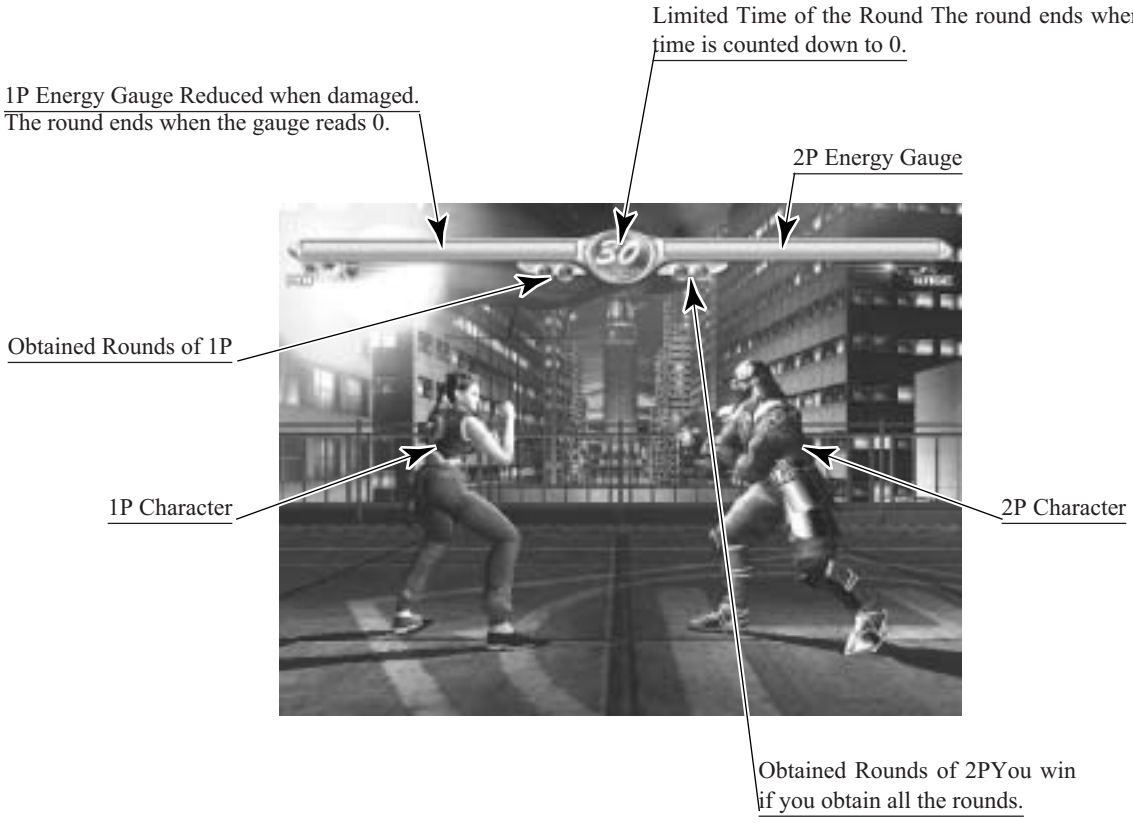
⑥ Continuing the game

You can continue the game as follows.
- When you lose a match, the CONTINUE screen appears.
- Insert the credit coins before the limit time is counted down to 0 (zero) on the CONTINUE screen, and press the start button. Then, you can continue the game (or resume the first round of the stage where you lost a match).

3 - 3 CHARACTER SELECT SCREEN

- You select one out of the 13 available characters.
- Each character indicates its difficulty level: novice, intermediate, or expert.
- Place the lever in an upper, lower, left, or right position to migrate from character to character, and press either of the punch, kick, and defense buttons to select a character.
- Hold down the start button and press either of the punch, kick, and defense buttons to toggle between 1P character's color and 2P character's color.

3 - 4 GAME-PLAYING SCREEN


Limited Time of the Round The round ends when the time is counted down to 0.
1P Energy Gauge Reduced when damaged. The round ends when the gauge reads 0.
2P Energy Gauge
Obtained Rounds of 1P
1P Character
2P Character
Obtained Rounds of 2PYou win if you obtain all the rounds.

3 - 5 BASIC OPERATIONS OF THE CONTROLS

The following explains the operation for a 1P character. For a 2P character, read right and left reverse.

The following abbreviations are used herein.

P: Punch button

K: Kick button

G: Defense (Guard) button

+: Operating the two or more controls at the same time

- P: Punching attack
- K: Kicking attack
- G: Defending upper and middle parts
- Lever in a lower position + G: Defending lower part
  (Note: The opponent may attack you at your upper, middle, or lower part. You must defend your upper, middle, or lower part accordingly.)
- Lever in a right position: Moving forwards
- Lever in a left position: Moving backwards
- Lever in an upper position: Dodging away from you
- Lever in a lower position instantly: Dodging toward you
- P or K + lever in an upper position: Jumping upwards
- P or K + lever in an upper right position: Jumping diagonally forwards
- P or K + lever in an upper left position: Jumping diagonally backwards
- Lever in a right position two times quickly: Dashing forwards
- Lever in a left position two times quickly: Dashing backwards
- Lever in a lower right position two times quickly: Crouching and dashing forwards
- Lever in a lower left position: two times quickly: Crouching and dashing backwards
- Lever held in a lower position: Crouching
- P + G when you are close to the opponent: Throwing
- P + G when the opponent is throwing you: Escaping the throw (slipping)
- Lever in an upper position + P for the downed opponent: Jumping and attacking the downed opponent
- Repeated G when you are downed: Standing up quickly
- Repeated K when you are downed: Kicking attack immediately after quickly standing up
- Lever in a left position when you are downed: Rolling backwards and standing up
- Continuously operated lever when you are faltering: Unfaltering quickly

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3 - 6 SPECIAL OPERATIONS OF THE CONTROLS

Dodging/Attacking
Immediately after surely dodging by a lever operation, you attack an opponent. Thus you can use the combination of dodging/attacking skills.

Lever in an upper position + P + K + G: Dodging away from you and attacking
Lever in a lower position instantly + P + K + G: Dodging toward you and attacking

Ukemi (safe ways of falling down)
The ukemi enables you to regain your balance just when landing and to immediately attack an opponent. This skill lessens damage to you. Thus you can escape from the crunch and rather earn a chance to counterattack. You may be just downed or use the ukemi, whichever is tactically desirable in each situation.

P + K + G immediately before you are downed: Ukemi

Attacking with the accumulated energy
Using the energy accumulated for a little time, you can destroy an opponent's defenses. This high-risk, high-return skill enhances your tactical capabilities. Special commands, one each with a character, are available to activate this function.

Fighting by the walls
- You may damage and destroy the walls. Thereby you can change the state of the ring as tactically required.
- The opponent may falter when you throw him/her against the walls. This enables you to use the combination (Combo) skills.

3 - 7 PERSON-VS-PERSON (VS) MATCHS

- A new player may join you in playing the GAME or selecting a character. As a result the system suspends the current one-person match against a computer-operated character and starts a person-vs-person match.
- The new player must insert the credit coins before joining.
- After playing the person-vs-person match only the winner can continue to play the suspended match: one-person match against a computer-operated character. He/she resumes the first round of the suspended match.
- When you have set the STAGE item to RANDOM on the GAME ASSIGNMENTS screen, the built-in computer (CPU) randomly selects a stage.
- When you have set the STAGE item to SELECTIVE on the GAME ASSIGNMENTS screen, the newly joined player selects a stage. (For more information see the chapter 4, B, b. "GAME ASSIGNMENTS.") To select, he/she places the lever in an upper, lower, left, or right position to migrate from stage to stage, and presses either of the punch, kick, and defense buttons.

PERSON-VS-PERSON (VS) MATCHS•STAGE SELECT SCREEN

4. TEST MODE

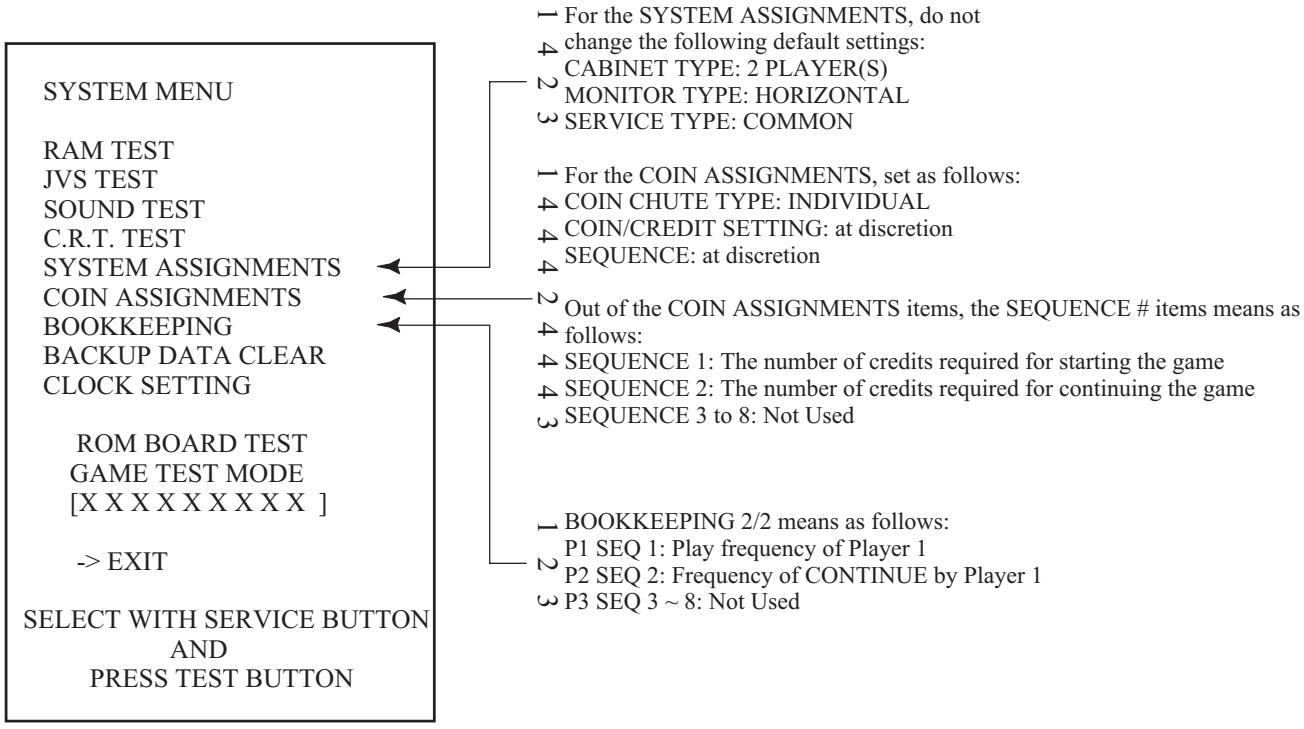
A. SYSTEM MENU

STOP
IMPORTANT

When settings are changed in SYSTEM ASSIGNMENTS, COIN ASSIGNMENTS, and GAME ASSIGNMENTS of GAME TEST MODE, be sure to exit from the test mode of SYSTEM MENU screen. The contents of setting changes are stored in the IC on the BOARD when exiting from the Test Mode. If the power is turned off in the Test Mode (before exiting), the contents of setting changes are ineffective. In this case, the settings remain unchanged.

This test mode mainly allows the IC Board to be checked for accurate functioning, monitor color to be adjusted as well as COIN ASSIGNMENTS and GAME ASSIGNMENTS to be adjusted.

1) Connect the power, and press the TEST Button. Then the following SYSTEM MENU screen appears.


SYSTEM MENU
RAM TEST
JVS TEST
SOUND TEST
C.R.T. TEST
SYSTEM ASSIGNMENTS
COIN ASSIGNMENTS
BOOKKEEPING
BACKUP DATA CLEAR
CLOCK SETTING
ROM BOARD TEST
GAME TEST MODE
[X X X X X X X X X]
-> EXIT
SELECT WITH SERVICE BUTTON
AND
PRESS TEST BUTTON
For the SYSTEM ASSIGNMENTS, do not change the following default settings:
CABINET TYPE: 2 PLAYER(S)
MONITOR TYPE: HORIZONTAL
SERVICE TYPE: COMMON
For the COIN ASSIGNMENTS, set as follows:
COIN CHUTE TYPE: INDIVIDUAL
COIN/CREDIT SETTING: at discretion
SEQUENCE: at discretion
Out of the COIN ASSIGNMENTS items, the SEQUENCE # items means as follows:
SEQUENCE 1: The number of credits required for starting the game
SEQUENCE 2: The number of credits required for continuing the game
SEQUENCE 3 to 8: Not Used
BOOKKEEPING 2/2 means as follows:
P1 SEQ 1: Play frequency of Player 1
P2 SEQ 2: Frequency of CONTINUE by Player 1
P3 SEQ 3 ~ 8: Not Used

2) Press the SERVICE Button to move the -> mark to any desired item, and press the TEST Button.

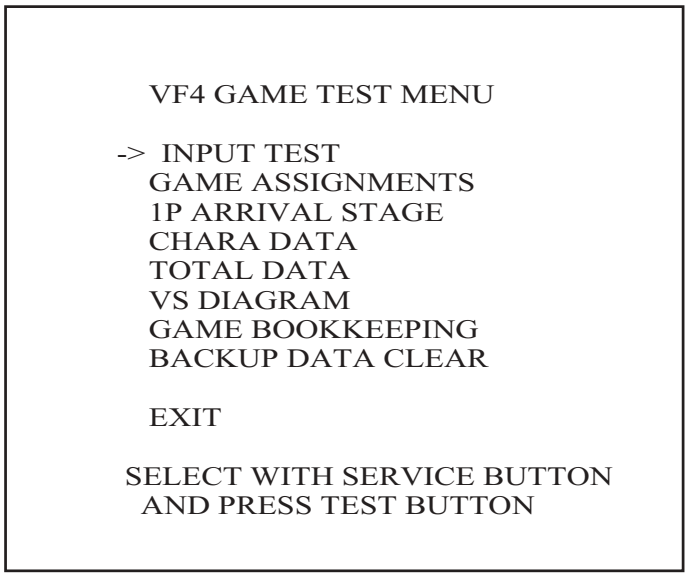
3) Press the SERVICE Button to move the -> mark to GAME TEST MODE item, and press the TEST Button. Then the GAME TEST MENU screen appears that enables to test the items specific to this game. For the details, see the following pages.

4) After testing, select the EXIT and press the TEST Button. The game advertising screen reappears.

NOTE: For more information about the SYSTEM MENU screen, see the NAOMI 2 Service Manual.

B. GAME TEST MODE

Press the SERVICE Button to move the arrow mark to the GAME TEST MODE item on the SYSTEM MENU screen, and press the TEST Button. The GAME TEST MENU screen, specific for this game, opens.
Press the SERVICE Button to move the arrow mark to a desired test item on the GAME TEST MENU screen, and press the TEST Button to open the related screen.
After testing, move the arrow mark to the EXIT item and press the TEST Button. The SYSTEM MENU screen reappears



GAME TEST MENU Screen

a. INPUT TEST

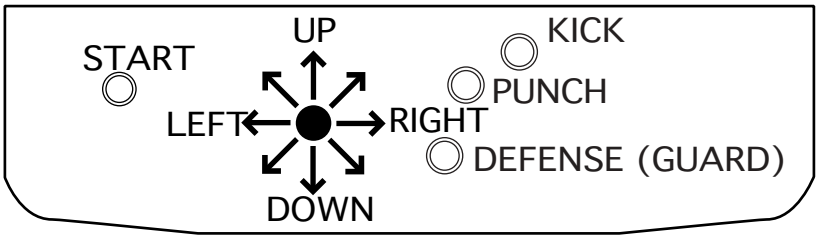
This test displays the state of each switch and button.
If the switch goes ON when the switch/button is pressed, it is satisfactory.
Press SERVICE Button and TEST Button simultaneously to have the MENU return on to the screen.

INPUT TEST

PLAYER	1P	2P
START	OFF	OFF
UP	OFF	OFF
DOWN	OFF	OFF
LEFT	OFF	OFF
RIGHT	OFF	OFF
GUARD	OFF	OFF
PUNCH	OFF	OFF
KICK	OFF	OFF
TEST	OFF	
SERVICE	OFF	

PRESS SERVICE+TEST BUTTON TO EXIT

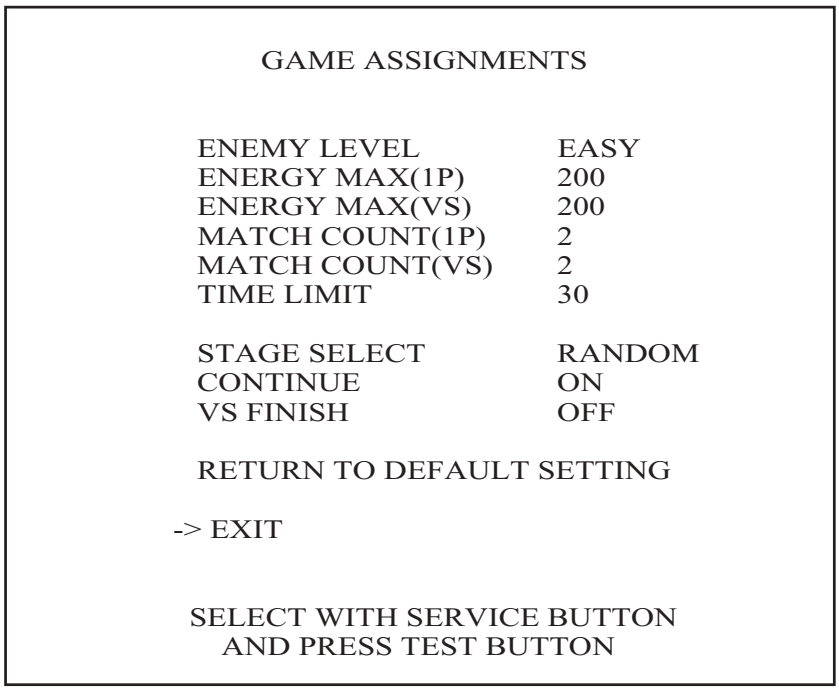
INPUT TEST Screen



CONTROL PANEL

b. GAME ASSIGNMENTS

Allows game difficulty adjustments, time setting, etc. to be changed. Move the arrow to the desired item by SERVICE Button and press the TEST Button to change the setting. Select EXIT to return to the MENU screen.



GAME ASSIGNMENTS Screen

- ENEMY LEVEL: Sets the difficulty level of the one-person match.
  VERY EASY gEASY gNORMAL gHARD gVERY HARD
  (Default: NORMAL)

- ENERGY MAX (1P): Sets the energy (initial value) in a one-person game.
  180 g200 g220 g240 (Default: 200)

- ENERGY MAX (VS): Sets the energy (initial value) in a person-vs-person game.
  180 g200 g220 g240 (Default: 200)

- MATCH COUNT (1P): Sets the number of the rounds that a player aims to gain for winning the related match in a one-person game.
  2 g3 g4 g5 (Default: 2)

- MATCH COUNT (VS): Sets the number of the rounds that a player aims to gain for winning the related match in a person-vs-person game.
  2 g3 g4 g5 (Default: 2)

- TIME LIMIT: Sets the limit time of a match.
  30 g45 g60 (Default: 30)

- STAGE SELECT: Sets the method of selecting a stage in a person-vs-person game.
  RANDOM indicates an automatic selection by the computer.
  RANDOM gSELECTIVE (Default: RANDOM)

- CONTINUE: Determines whether you can continue to play the lost match in a one-person game.
  ON indicates that you can play the lost match.
  ON gOFF (Default: ON)

- VS FINISH: Determines whether to finish the game after you have successfully played the matches.
  The *WIN settings indicate that the game is finished for both the players after you have won consecutively * times (Note that the * mark is equal to 1 up to 10 or the number of winning matches as below). These settings are prepared for some competitions or events. Usually, therefore, set this item to OFF.
  OFF g1 WIN g2 WIN g3 WIN g4 WIN g5 WIN g6 WIN g7 WIN g8 WIN g9 WIN g10 WIN (Default: OFF)

- RETURN TO DEFAULT SETTING: Resets all the GAME ASSIGNMENTS items to the default values.

- EXIT: Returns to the GAME TEST MENU screen.

c. 1P ARRIVAL STAGE

Lists the playing statistics by difficulty level.

ARRIVAL STAGE 1/5

1P GAME STAGE RECORDS

VERY EASY

	TOTAL	1COIN
#1	0	0
#2	0	0
#3	0	0
#4	0	0
#5	0	0
#6	0	0
#7	0	0
#8	0	0
#9	0	0
#10	0	0
#11	0	0
#12	0	0
#13	0	0
#14	0	0

PRESS TEST BUTTON TO CONTINUE

ARRIVAL STAGE 1/5 Screen

- ARRIVAL STAGE 1/5:
  Indicates that the statistics is for a VERY EASY level of one-person game.

- 1COIN:
  Indicates how many times each stage has been reached in a VERY EASY level of one-person game, excluding the number of continuing.

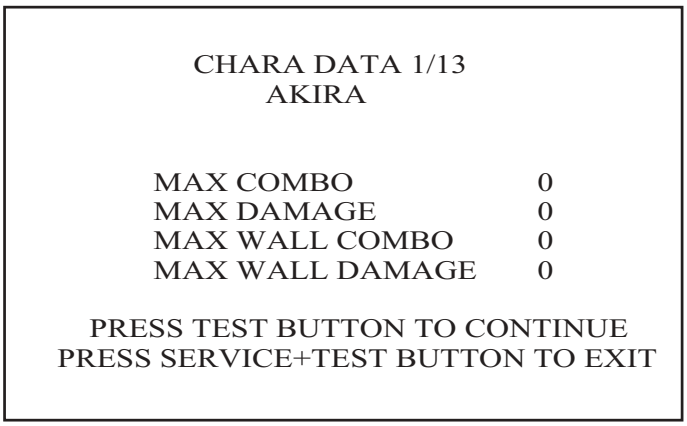
- TOTAL:
  Indicates how many times each stage has been reached in a VERY EASY level of one-person game, including the number of continuing.

Press the TEST Button to open the next screen. Press the TEST Button on the last 5/5 screen to return to the GAME TEST MENU screen.

- ARRIVAL STAGE 2/5: Indicates the similar statistics in an EASY level.
- ARRIVAL STAGE 3/5: Indicates the similar statistics in a NORMAL level.
- ARRIVAL STAGE 4/5: Indicates the similar statistics in a HARD level.
- ARRIVAL STAGE 5/5: Indicates the similar statistics in a VERY HARD level.

d. CHARA DATA

Lists the playing statistics by character. The following 1/13 screen is the example for the character named Akira.



CHARA DATA 1/13 Screen

- MAX COMBO: Indicates the maximum number of the combos without walls.
- MAX DAMAGE: Indicates the maximum damages without walls.
- MAX WALL COMBO: Indicates the maximum number of the combos with walls.
- MAX WALL DAMAGE: Indicates the maximum damages with walls.

Press the TEST Button to open the next screen. Press the TEST Button on the last 13/13 screen to return to the GAME TEST MENU screen.
Press the TEST and SERVICE Buttons simultaneously to directly return to the GAME TEST MENU screen.

- CHARA DATA 2/13 SARAH: Indicates the similar statistics on Sarah.
- CHARA DATA 3/13 LAU: Indicates the similar statistics on Lau.
- CHARA DATA 4/13 SHUN: Indicates the similar statistics on Shun.
- CHARA DATA 5/13 JEFFRY: Indicates the similar statistics on Jeffry.
- CHARA DATA 6/13 PAI: Indicates the similar statistics on Pai.
- CHARA DATA 7/13 JACKY: Indicates the similar statistics on Jacky.
- CHARA DATA 8/13 KAGE: Indicates the similar statistics on Kage.
- CHARA DATA 9/13 LION: Indicates the similar statistics on Lion.
- CHARA DATA 10/13 WOLF: Indicates the similar statistics on Wolf.
- CHARA DATA 11/13 AOI: Indicates the similar statistics on Aoi.
- CHARA DATA 12/13 LEI: Indicates the similar statistics on Lei Fei.
- CHARA DATA 13/13 VAN: Indicates the similar statistics on Vanessa.

e. TOTAL DATA

Lists the entire statistics by character.

TOTAL DATA

SERIES OF WINS			WINS OF CHARA	
1ST	20	AKIRA	AKIRA	0
2ND	20	SARAH	SARAH	0
3RD	20	LAU	LAU	0
4TH	20	SHUN	SHUN	0
5TH	19	JEFFRY	JEFFRY	0
6TH	19	PAI	PAI	0
7TH	19	JACKY	JACKY	0
8TH	18	KAGE	KAGE	0
9TH	18	LEI	LION	0
10TH	18	AOI	WOLF	0
			AOI	0
			LEI	0
			VAN	0

PRESS TEST BUTTON TO EXIT

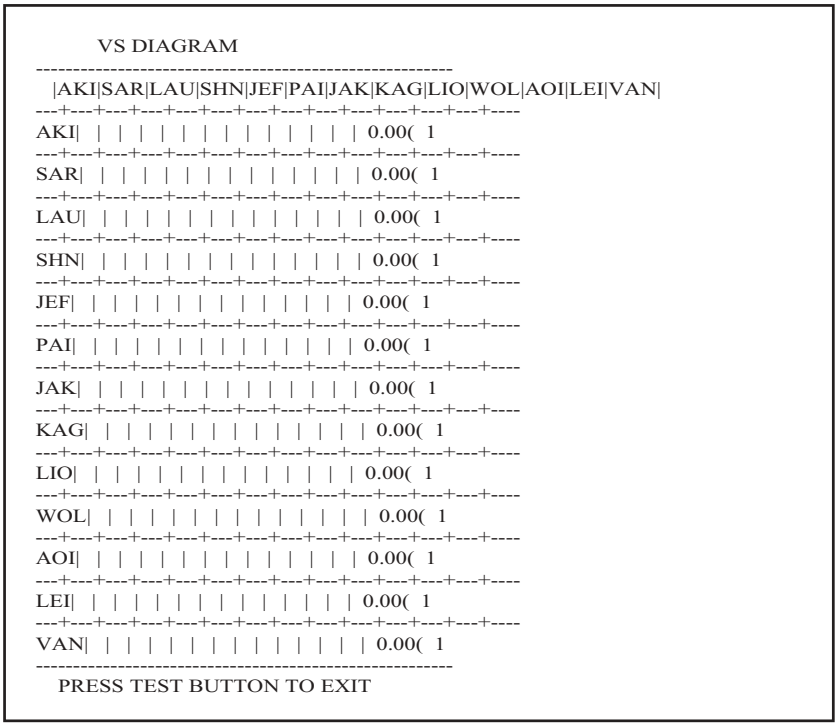
TOTAL DATA Screen

- SERIES OF WINS: Indicates the number of the consecutive winnings for each character.
- WINS OF CHARA: Indicates the accumulated number of the winnings for each character.

Press the TEST Button to return to the GAME TEST MENU screen.

f. VS DIAGRAM

Illustrates a matching diagram.


VS DIAGRAM
|AKI|SAR|LAU|SHN|JEF|PAI|JAK|KAG|LIO|WOL|AOI|LEI|VAN|
AKI| | | | | | | | | | | | | 0.00(1
SAR| | | | | | | | | | | | | 0.00(1
LAU| | | | | | | | | | | | | 0.00(1
SHN| | | | | | | | | | | | | 0.00(1
JEF| | | | | | | | | | | | | 0.00(1
PAI| | | | | | | | | | | | | 0.00(1
JAK| | | | | | | | | | | | | 0.00(1
KAG| | | | | | | | | | | | | 0.00(1
LIO| | | | | | | | | | | | | 0.00(1
WOL| | | | | | | | | | | | | 0.00(1
AOI| | | | | | | | | | | | | 0.00(1
LEI| | | | | | | | | | | | | 0.00(1
VAN| | | | | | | | | | | | | 0.00(1
PRESS TEST BUTTON TO EXIT

VS DIAGRAM Screen

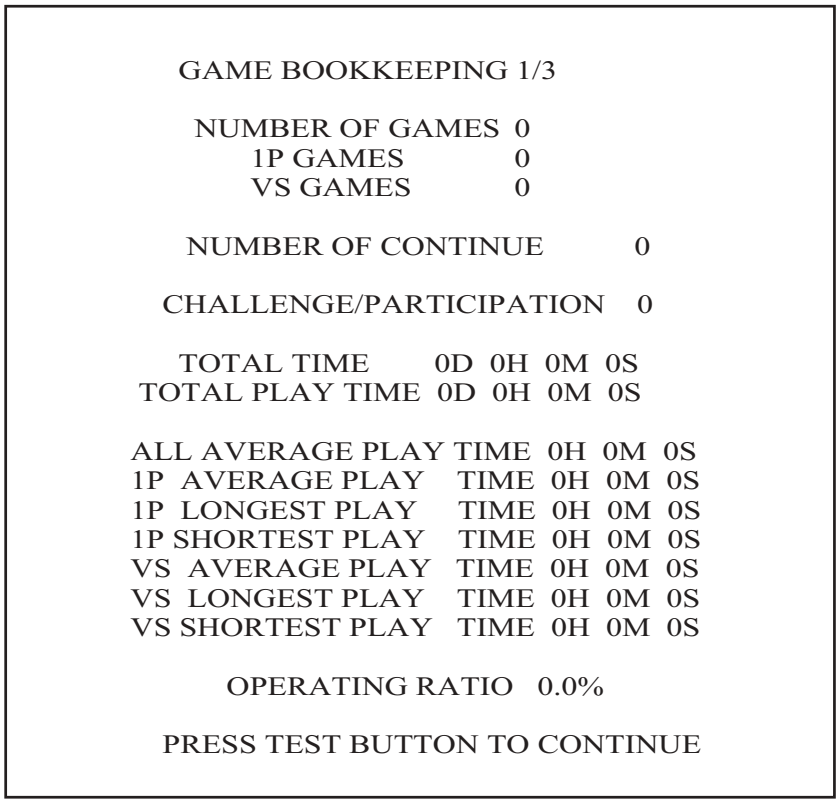
The percentage of wins is indicated on the second rightmost column of the screen. The order of wins percentage is indicated on the rightmost column of the screen.
Press the TEST Button to return to the GAME TEST MENU screen.

Abbreviations on the Screen for the Character Names

Abbreviations:	Character Names
AKI:	AKIRA
SAR:	SARAH
LAU:	LAU
SHN:	SHUN
JEF:	JEFFRY
PAI:	PAI
JAK:	JACKY
KAG:	KAGE
LIO:	LION
WOL:	WOLF
AOI:	AOI
LEI:	LEI FEI
VAN:	VANESSA

g. GAME BOOKKEEPING

Indicates the overall statistics. Three screens are available. Press the TEST Button to migrate from one screen to another. Press the TEST Button on the third screen to return to the GAME TEST MENU screen.


GAME BOOKKEEPING 1/3
NUMBER OF GAMES 0
1P GAMES 0
VS GAMES 0
NUMBER OF CONTINUE 0
CHALLENGE/PARTICIPATION 0
TOTAL TIME 0D 0H 0M 0S
TOTAL PLAY TIME 0D 0H 0M 0S
ALL AVERAGE PLAY TIME 0H 0M 0S
1P AVERAGE PLAY TIME 0H 0M 0S
1P LONGEST PLAY TIME 0H 0M 0S
1P SHORTEST PLAY TIME 0H 0M 0S
VS AVERAGE PLAY TIME 0H 0M 0S
VS LONGEST PLAY TIME 0H 0M 0S
VS SHORTEST PLAY TIME 0H 0M 0S
OPERATING RATIO 0.0%
PRESS TEST BUTTON TO CONTINUE

GAME BOOKKEEPING (1/3) Screen

- NUMBER OF GAMES: The total number of the games played
- 1P GAMES: The number of the one-person games played
- VS GAMES: The number of the person-vs-person games played
- NUMBER OF CONTINUE: The number of accumulated continuing-times
- CHALLENGE/PARTICIPATION: The number of accumulated joining-times
- TOTAL TIME: The accumulated power-up time period
- TOTAL PLAY TIME: The accumulated playing time period
- ALL AVERAGE PLAY TIME: The averaged playing time period (one-person + person-vs-person)
- 1P AVERAGE PLAY TIME: The averaged playing time period (one-person)
- 1P LONGEST PLAY TIME: The longest playing time period (one-person)
- 1P SHORTEST PLAY TIME: The shortest playing time period (one-person)
- VS AVERAGE PLAY TIME: The averaged playing time period (person-vs-person)
- VS LONGEST PLAY TIME: The longest playing time period (person-vs-person)
- VS SHORTEST PLAY TIME: The shortest playing time period (person-vs-person)
- OPERATING RATIO: TOTAL PLAY TIME/TOTAL TIME (%)

GAME BOOKKEEPING 2/3

USAGE OF CHARACTERS

1P CHARACTERS		2P CHARACTERS	
AKIRA	0	AKIRA	0
SARAH	0	SARAH	0
LAU	0	LAU	0
SHUN	0	SHUN	0
JEFFRY	0	JEFFRY	0
PAI	0	PAI	0
JACKY	0	JACKY	0
KAGE	0	KAGE	0
LION	0	LION	0
WOLF	0	WOLF	0
AOI	0	AOI	0
LEI	0	LEI	0
VAN	0	VAN	0

PRESS TEST BUTTON TO CONTINUE

GAME BOOKKEEPING (2/3) Screen

Indicates how many times each character (for 1P and 2P) has been used.

GAME BOOKKEEPING 3/3

USAGE OF STAGE

#ROM	0
#NYC	0
#CAS	0
#SUI	0
#YAM	0
#UMI	0
#DUR	0
#DJO	0
#GDN	0
#HBR	0
#CAV	0
#NOH	0
#ARE	0
#BAN	0

PRESS TEST BUTTON TO EXIT

GAME BOOKKEEPING (3/3) Screen

Indicates how many times each stage has been used with the STAGE item set to SELECTIVE.

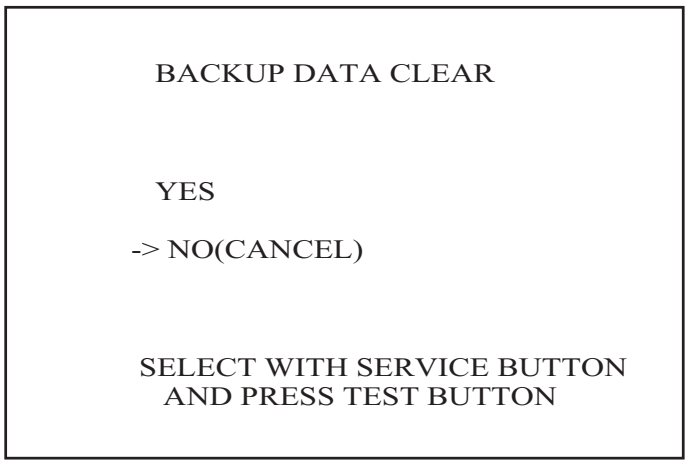
Abbreviations on the Screen for the Stage Names

Abbreviations: Stage Names

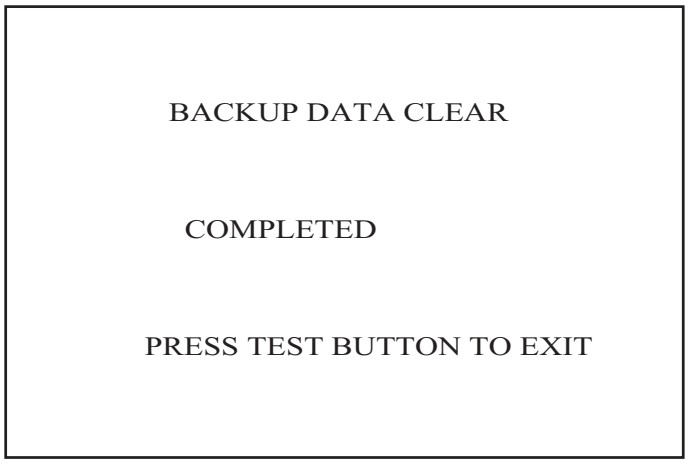
ROM:COLOSSEUM	YAM:TEMPLE	GDN:GARDEN	ARE:ARENA
NYC:CITY	UMI:ISLAND	HBR:HARBOR	BAN:GREAT WALL
CAS:CASTLE	DUR:HANGAR	CAV:CAVE	
SUI:AQUARIUM	DJO:GYMNASIUM	NOH:SHRINE	

h. BACKUP DATA CLEAR

Clears the backup data from the screen.



- YES: Opens the BACKUP DATA CLEAR - COMPLETED screen for clearing the following data. (The other data are not cleared.)
  1P ARRIVAL STAGE
  CHARA DATA
  TOTAL DATA
  VS DIAGRAM
  GAME BOOKKEEPING
- NO: Returns to the GAME TEST MENU screen.

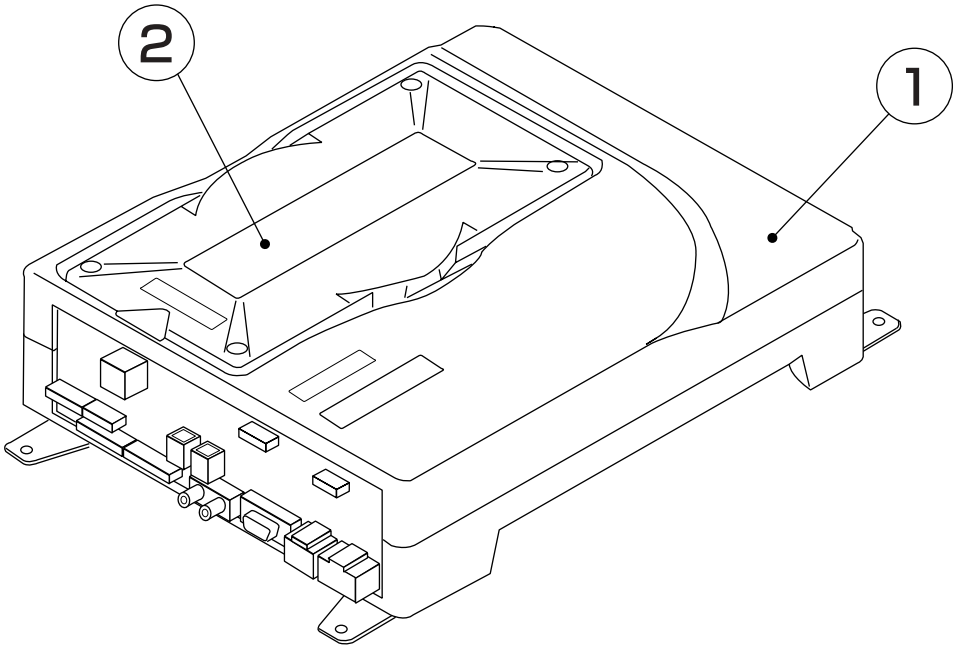


After clearing the backup data, the COMPLETED message appears.
Press the TEST Button to return to the GAME TEST MENU screen.

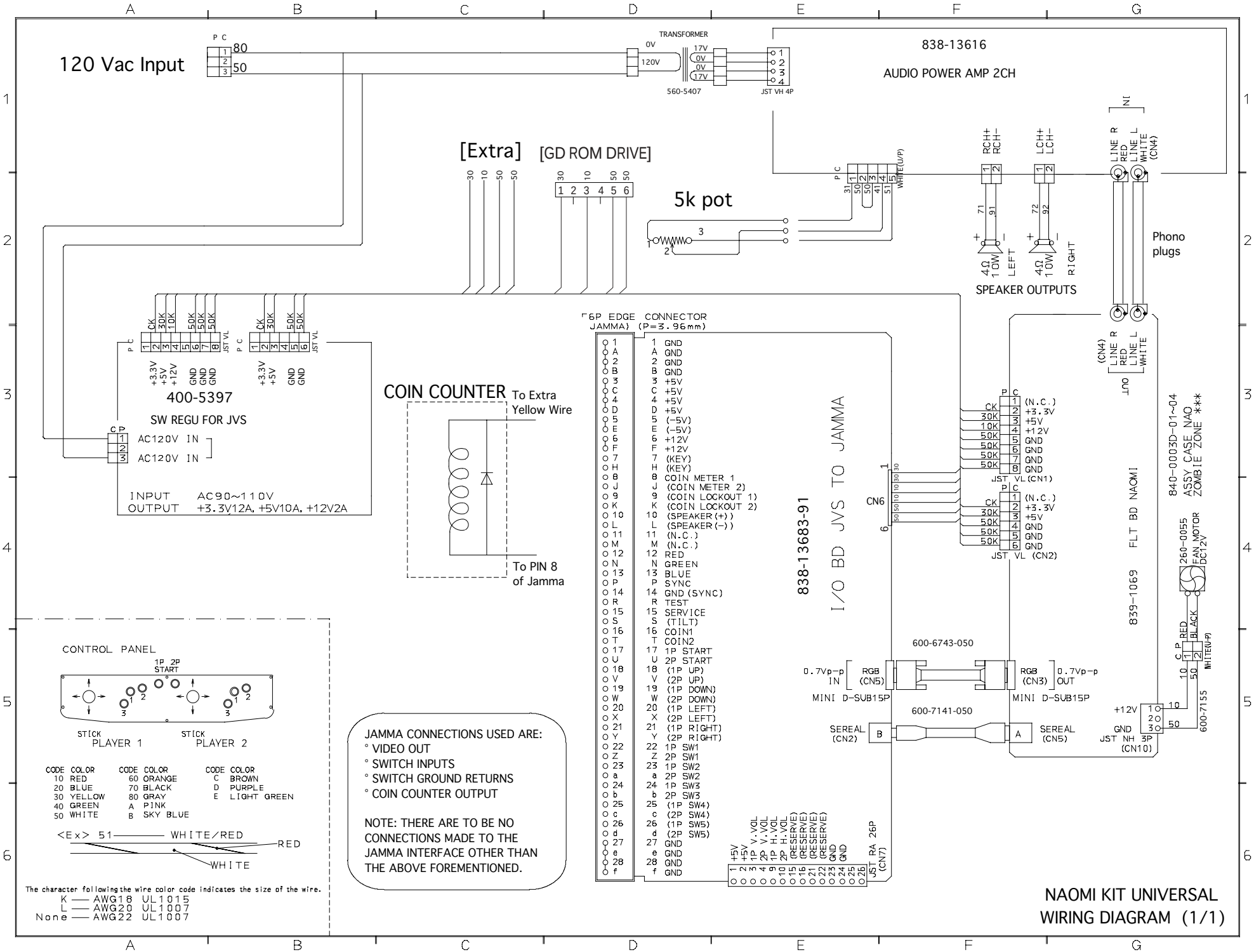
5. GAME BOARD

CAUTION!

- Do not expose the Game Board so as to avoid causing an accident or malfunctioning.
- Static electricity discharge can damage electronic parts on the IC Board. Before starting work by opening the Shield Case Lid, be sure to touch grounded metallic surfaces to discharge physically charged static electricity.
- When replacing the Game Board, refer to the CVT Manual and Instruction Manual.



	PART NO.	DESCRIPTION
ASSY CASE (① + ②)	840-0080D-01 840-0080D-02 840-0080D-03 840-0080D-04	ASSY CASE NAT VF4 USA : USA ASSY CASE NAT VF4 EXP : OTHERS ASSY CASE NAT VF4 KOR : KOREA ASSY CASE NAT VF4 AUS : AUSTRALIA
① ASSY CASE NAOMI 2 MAIN BOARD	840-0046A-01 840-0046A-02 840-0046A-03 840-0046A-04	ASSY CASE NAOMI 2 MAIN BD USA ASSY CASE NAOMI 2 MAIN BD EXP ASSY CASE NAOMI 2 MAIN BD KOR ASSY CASE NAOMI 2 MAIN BD AUS
② ROM CASE	840-0080C	ROM CASE NAT VF4



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Warranty

Your new Sega Product is covered for a period of 90 days from the date of shipment. This certifies that the Printed Circuit Boards, Power Supplies and Monitor are to be free of defects in workmanship or materials under normal operating conditions. This also certifies that all Interactive Control Assemblies are to be free from defects in workmanship and materials under normal operating conditions. No other product in this machine is hereby covered.

Sellers sole liability in the event a warranted part described above fails shall be, at its option, to replace or repair the defective part during the warranty period. For Warranty claims, contact your Sega Distributor.

Should the Seller determine, by inspection that the product was caused by Accident, Misuse, Neglect, Alteration, Improper Repair, Installation or Testing, the warranty offered will be null and void.

Under no circumstances is the Seller responsible for any loss of profits, loss of use, or other damages.

This shall be the exclusive written Warranty of the original purchaser expressed in lieu of all other warranties expressed or implied. Under no circumstance shall it extend beyond the period of time listed above.

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(415) 701-6594 fax